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AUTHOR Culver, Victor I.; Morgan, Raymond F.
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ABSTRACT

Two measures of locus of control, J.B. Rotter's I-E Scale and H. Levenson's I, P, and C Scales, were correlated with two independent measures of reading achievement in a sample of 100 college freshmen enrolled in a reading improvement program. The Rotter I-E Scale produced no significant relationships to any measure of reading achievement. Levenson's Internal Scale produced a significant positive relationship with reading comprehension scores. Significant negative correlation was demonstrated between Levenson's Chance Scale and total reading scores. It was concluded that internal-versus-external locus of control is a significant variable related to achievement and should be considered in developing strategies for reading instruction. (Author)

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The Relationship of Locus of Control To Reading Achievement

Victor I. Culver
Virginia Wesleyan College

Raymond F. Morgan
Old Dominion University

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The Relationship of Locus of Control To Reading Achievement

Effective teaching in reading depends on more than the development of a thorough skills based approach. In recent years reading teachers have become more inclined to consider affective/motivational factors as a part of reading instruction. The research in reading, however, has not generally provided the empirical foundation upon which to validate the development of demonstratably meaningful teaching strategies in the affective domain. This research is an investigation of the relationship of one variable, locus of control, to achievement in reading.

The authors wish to express appreciation for the capable assistance of Ms. Linda Hecht in the conduct of this research.

Locus of control has been defined as a personality construct which refers to a person's perceptions of the agency of control of the reinforcements he receives (Butterfield, 1964). A person is said to have an internal locus of control if he feels that the reinforcements he receives occur primarily because of his own purposive behavior. A person is said to have an external locus of control if he feels that his reinforcements occur primarily because of forces beyond his immediate control; i.e., luck, chance, or fate. Lefcourt (1966) established a definition which views the construct as an integral part of an elaborate theory of behavior which operates across a large number of situations in which the individual may be involved. Strickland (1973) states that locus of control appears to be a pervasive expectancy variable related to a number of mastery behaviors.

There is a compelling logic which leads one to conclude that there is a significant relationship between the construct of locus of control and academic achievement. Lefcourt (1966) indirectly supports this idea by noting that most scales devised to measure locus of control stress academic interest. Rotter (1966) supports the hypothesis, but discusses possible exceptions. He says that among many college students and adults (especially males) the external view may be held as a defense against failure. Further, upper level academic situations are more specific and require more specific responses, while I-E scales are designed to measure a more generalized expectancy. Rotter cites empirical support for the hypothesis that internals have stronger academic motivation.

Studies attempting to establish the relationship between locus of control and academic achievement have produced conflicting results. Eisenman and Platt (1968) found no correlation between grades, as evidence of achievement, and I-E scores. Hjelle (1970) found only marginal support for his hypothesis of relationship between locus of control and grade point averages. Massari and Rosenblum (1972) found that I-E scores correlated negatively with achievement in females and non-significantly in males. Brown and Strickland (1972) and Boor (1973) found internality to be positively correlated with higher grades in males.

In attempting to account for these diverse findings, the measurement of internal vs. external control as a single continuum has been questioned. Levenson (1972) questioned the validity of lumping expectancies of control by fate, chance, and powerful others together under the rubric of external control. Her rationale for differentiating two types of externals stems from the reasoning that people who believe the world to be unordered behave and think differently from people who believe the world to be ordered but under the control of powerful others. She therefore developed a tripartite dimension measured by three scales: Internal, Chance, and Powerful Others.

Research using Levenson's scales may establish the relationship of locus of control to academic achievement. Prociuk and Breen (1974) studied the relationship between Levenson's factors and (1) study habits and attitudes, and (2) achievement measured by grade point averages. The results demonstrated that internal control and measures of study

habits and achievement were positively correlated, and that study habits and achievement were negatively correlated with powerful others and chance. These findings are consistent with the expectations of performance derived from the theory.

This research explores two questions. Given that locus of control may be a generalized expectancy, do the effects concentrate on more narrowly defined measures of achievement, specifically, reading achievement? Would differentiating the external dimension of control reveal a significant and perhaps stronger degree of relationship between internals and reading achievement?

Methodology

The subjects used in this study were 100 college freshmen who were randomly selected from an original enrollment of approximately 500 students in a reading improvement program. The students were administered a battery of pre- and post-course achievement tests including alternate forms of the Nelson-Denny Reading Test (Brown, 1973) and two measures of locus of control. Rotter's I-E Scale was administered in the pre-course assessment with Form C of the Nelson-Denny. Levenson's I, P, and C Scales were administered several months later in the post-course assessment along with Form D of the Nelson-Denny. While students were aware of their reading achievement scores, no information was given concerning the locus of control scales.

The data examined in this study consist of raw scores from

the pre- and post-course Nelson-Denny scales, the scores from the Rotter I-E Scale, and the I, P, and C Scale scores from Levenson's test. Two Pearson Product Moment Correlation analyses of the data were made: (1) between pre-course Nelson-Denny Scale scores and Rotter's I-E scores, and (2) between post-course Nelson-Denny Scale scores and Levenson's I, P, and C Scale scores.

Results and Discussion

The means and standard deviations for the distribution of pre-course scores are presented in Table 1. The correlation matrix

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Insert Table 1 about here

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for these scores, presented in Table 2, indicate that there was no

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Insert Table 2 about here

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significant relationship found between the Rotter I-E scores and any measure of reading achievement measured by the Nelson-Denny test. The first question, pertaining to the hypothesis that the generalized expectancy related to Rotter's I-E Scale would concentrate on a more narrowly defined measure of achievement and provide evidence of significant relationship, was not supported in this study.

The means and standard deviations for the distributions of post-course scores are presented in Table 3. The correlation matrix

Table 1

Means and Standard Deviations
for Pre-Course Condition

	Means	Standard Deviations
I-E Score	9.06	3.37
Vocabulary	23.74	7.97
Comprehension	35.98	8.09
Total Reading	59.72	13.02
Rate	196.68	58.31

Table 2

Pearson Correlation Matrix for Pre-Course Results Between Rotter I-E Scores and Reading Achievement Scores

	Vocabulary	Comprehension	Total	Rate
	0.02	-0.04	-0.01	-0.09
Rotter I-E	n=100	n=100	n=100	n=100
	S=0.423	S=0.339	S=0.44	S=0.195

Insert Table 3 about here

for these data, presented in Table 4, reveal a significant positive

Insert Table 4 about here

relationship between the Levenson Internal Scale and the reading comprehension scores, $r = 0.25$ ($p < .01$), and significant negative relationship between the Levenson Chance Scale and the total reading score, $r = -0.20$ ($p < .02$). These findings are consistent with the theoretical predictions for performance and are supported by the similar earlier findings of Prociuk and Breen (1974). It would appear that the second question, pertaining to the hypothesis that differentiating the external locus of control factor would provide stronger evedence of relationship of the variables, was supported.

The results of this investigation indicate that the conflicting findirgs of early studies regarding locus of control and its relationship to academic achievement most likely result from the lack of differentiation of two different aspects of external control. When this distinction is made, and an instrument sensitive to the differences is used, the relationship between internality and achievement appears to be real. Further, the demonstration of the relationship is replicable under different achievement conditions.

The implications of these findings are important for those

Table 3

Means and Standard Deviations
for Post-Course Condition

	Means	Standard Deviations
Levenson Internal	36.09	4.98
Levenson Chance	18.23	7.80
Levenson Powerful Others	19.86	7.79
Vocabulary	27.83	8.97
Comprehension	40.01	8.56
Total Reading	67.85	13.27
Rate	257.86	64.66

Table 4

Pearson Correlation Matrix for Post-Course Results
Between Levenson I, P, and C Scales
and Reading Achievement Scores

	Vocabulary	Comprehension	Total	Rate
Levenson Internal	-0.09 n=100 S=0.174	0.25 n=100 S=0.001	0.10 n=100 S=0.163	0.09 n=100 S=0.193
Levenson Chance	-0.15 n=100 S=0.071	-0.15 n=100 S=0.068	-0.20 n=100 S=0.024	-0.13 n=100 S=0.099
Levenson Powerful Others	-0.12 n=100 S=0.116	-0.11 n=100 S=0.148	-0.01 n=100 S=0.451	-0.07 n=100 S=0.231

engaged in the teaching of reading. Individuals who are highly internal oriented should prove to be much more self-sufficient, and display quite different learning styles from those individuals who have a strong chance orientation. The individual who considers the world to be ordered, but controlled by some powerful other agent may present quite a different and more difficult problem for the classroom teacher.

If the goals of the reading teacher are to improve reading achievement, and further, to increase the efficiency of instruction, then affective factors in general must be specifically employed in instruction, and their relevance clearly understood in terms of expected outcomes. Locus of control is one of perhaps many variables which hold the promise for influencing the attainment of these goals, and as such, should be considered as an important factor in the refinement of instructional methodology.

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